

ABSTRACT OF THE INVENTION

A system and method for object inspection incorporates a level of hierarchy so that a single, primary alignment may be performed to generate a pose for multiple inspection regions. As a result, a Training mode may include the specification of a single alignment model window and a list of associated inspection region windows. Similarly, a Run-time Inspection Mode may also include specification of a single alignment model window and a list of associated inspection region windows. Such an implementation addresses the long standing problems associated with performing one or more types of inspection operations in one or more regions of a given sample-object image. By virtue of the hierarchical structure, operation of multiple inspection tools may be performed simultaneously or in any order and inspection of multiple inspection regions may be performed simultaneously or in any order.